

Factors Affecting The Purchase Decision Of Cargo Cycles By Commercial Users

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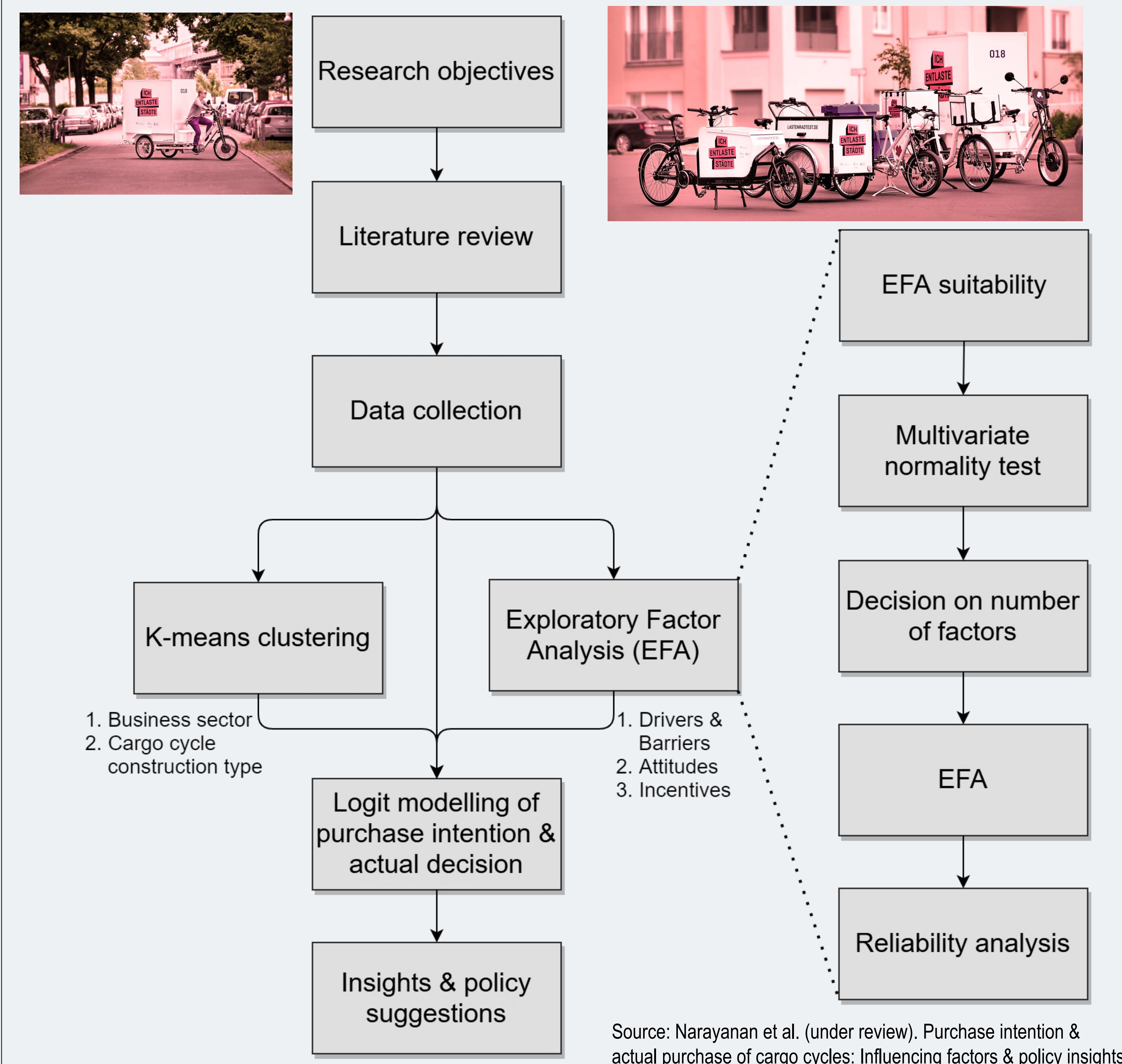
MOTIVATION & OBJECTIVES

- Pertinent literature shows several advantages & replacement potential for cargo cycles
- There are still reservations among fleet decision-makers & logistics operators
- It is unclear who will purchase & which factors will influence the purchase
- Primary objective:** Identify the factors that influence the actual purchase decision of cargo cycles by commercial users
- Secondary objective:** Comparison between the actual purchase decision & the purchase intention stated at the end of a 3-month vehicle trial
- The insights for policy-makers and industry can support them in improving cargo cycle penetration and reduce the reservations against their use in commercial transport

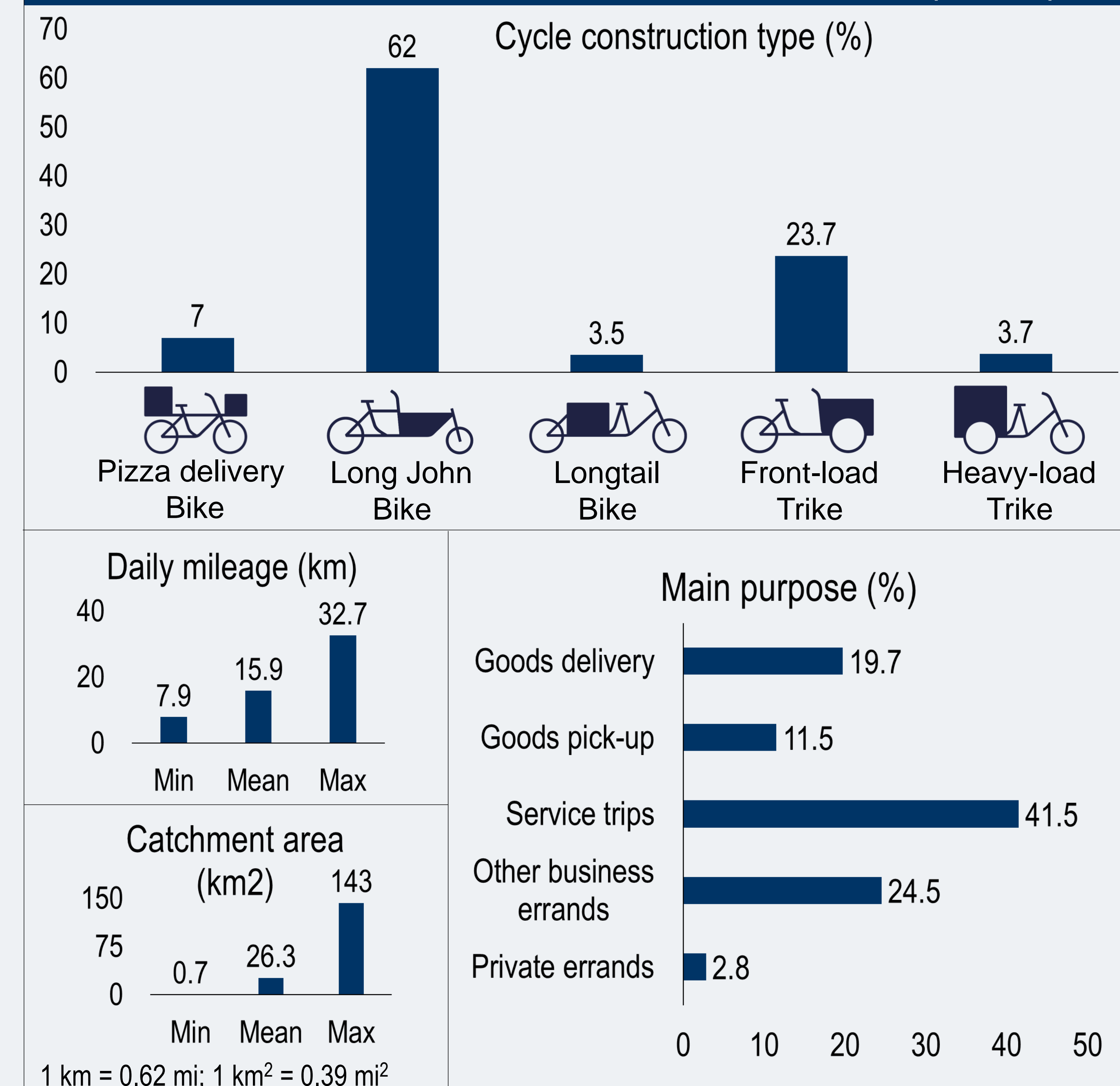
DATA COLLECTION

- Data from **Europe's largest cargo cycle testing** project, Ich entlaste Städte
- Freelancers, private companies, public organizations & NGOs across Germany had the opportunity to test a cargo cycle for 3 months
- 18 different cycle models, of 5 construction types, were made available
- Data collection from the participating organizations through **longitudinal survey** (before and at the end of the trial phase), **GPS** device & **mobile app**
- Follow-up query** is made regarding the actual purchase decision, between 3 to 12 months after the end of the trial phase

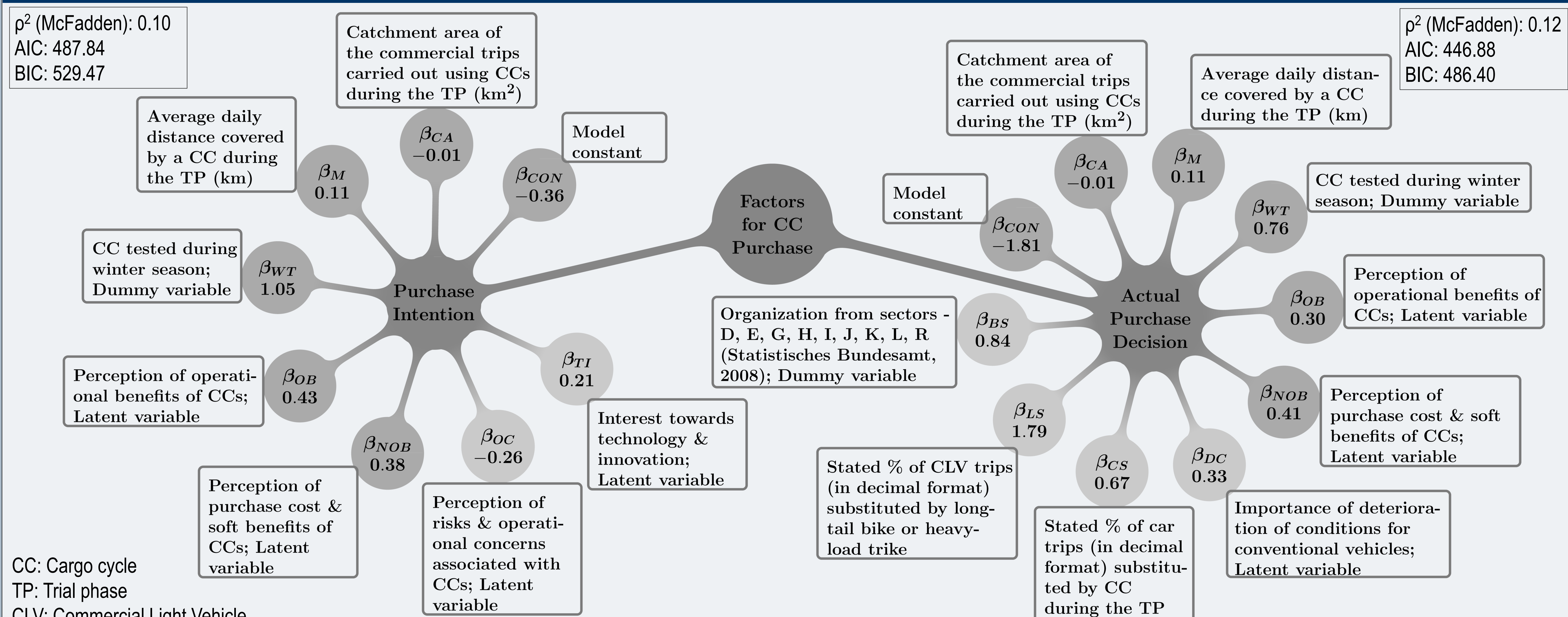
METHODOLOGY



DESCRIPTIVE STATISTICS FOR SELECTED VARIABLES (N = 400)



ESTIMATION RESULTS (BINARY LOGIT MODELS, $\alpha = 0.10$)



FINDINGS & DISCUSSIONS

INTENTION VS ACTUAL DECISION

- A higher share of intent (48.5%), compared to actual purchase (32.0%)
- Different driving factors; E.g., actual purchase significantly influenced by hard facts like the deteriorating conditions for conventional vehicles
- There is a **need to translate intention to actual decision**, when making conclusions based on intentions (e.g., SP survey results)

INSIGHTS BASED ON FACTORS FOR ACTUAL DECISION

- Cargo cycles can **substitute car trips**, supporting cities to achieve air quality & carbon emission reduction goals
- Organisations with limited catchment areas are more likely to purchase
- Regulative frameworks** that discourage the use of conventional vehicles (e.g., vehicle access restrictions) can accelerate the penetration
- Policies** aimed at **improving the operational benefits** (e.g., implementation of dedicated cycles lanes) are beneficial
- Campaigns** that promote the **soft benefits** of cargo cycles, along with **purchase subsidies**, will have a positive impact
- Trial schemes** are effective tools in reducing the negative reservations towards cargo cycles
- Longtail bikes & heavy-load trikes** are suitable to replace commercial light vehicles (e.g., vans), to carry bulky & heavy goods